

**A.D. PATEL INSTITUTE OF TECHNOLOGY**

**(A Charutar Vidya Mandal Institution)**

# **VAAHAN**

**AUTOMOBILE ENGINEERING NEWSLETTER**



*“WE MAKE THE WORLD TO MOVE”*

**DEPARTMENT OF AUTOMOBILE ENGINEERING**

**A. D. PATEL INSTITUTE OF TECHNOLOGY**

**NEW V V NAGAR- GUJARAT INDIA – 388121**

[www.adit.ac.in](http://www.adit.ac.in)

[www.youtube.com/automobileenggadit](http://www.youtube.com/automobileenggadit)

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**JULY - DECEMBER 2019**

**ISSUE NO.1**

### FROM THE DESK OF PRINCIPAL



Automobile engineering department ADIT has been creating a great value for its students, industry and society at large. The members of ADIT automobile engineering fraternity are contributing to various national and multinational companies in auto sector passionately. The department has well – equipped laboratory with state of the art instrumentation where students are imparted practical and hands on experience. Students have been participating in mega events like SAEBAJA, SUPRASAE, ETV and winning lead positions. I congratulate the department on bring out the newsletter which will enable stakeholders to get aware about the achievements of faculty and students of the automobile engineering department.

Dr.V.N. Singh  
Principal

### FROM THE DESK OF THE HEAD OF DEPARTMENT



I am very happy to bring out the first issue of the Newsletter of Automobile Engineering Department of A. D. Patel Institute of Technology. This newsletter outlines various activities that have taken place during the period of July-December, 2019 and the achievements of faculty and students. I appreciate all the team members for their efforts in bringing out this newsletter. Department of Automobile Engineering is putting all kind of efforts to ensure the overall progress of the students. Department had organized various activities like Industrial visits, Competitions and software trainings during previous semester. Department had also arranged mock interviews, group discussion and guideline sessions for preparations of Aptitude tests. Department of Automobile Engineering is thankful to Principal, Dr. V N Singh and Charutar Vidya Mandal, VallabhVidyanagar for providing all kind of facilities and support as and when needed. I wish that this activity of publishing the Newsletter will continue in future and will work as a platform for faculty members and students to show their work.

Dr. S.M Patel  
Head, Automobile Engineering Department,  
A. D. Patel Institute of Technology.  
Email: head.auto@adit.ac.in

## MESSAGE FROM EDITORIAL BOARD

As the editor of “VAAHAN”, first newsletter of Automobile Engineering Department, I convey my regards to all the members who supported me for making this happen, especially all the faculty members of Automobile Engineering Department. This newsletter mirrors the vision and mission of Automobile Engineering Department. It also highlights the events, activities and achievements. I do hope that “VAAHAN” will encourage many more students to come forward and express their talent and creativity. I would like to thank Dr. S.M. Patel (HOD, Automobile Engineering Department) for the continuous motivation, inputs and time to time feedback for the final draft of this newsletter.

Dr. R Balasubramanian,  
Assistant Professor,  
Automobile Engineering Department.

## ABOUT CHARUTAR VIDYAMADAL

One of the greatest sons of India Late Sardar Vallabhbhai Patel inspired Shri Bhaikaka and Shri Bhikabhai Saheb for rural resurgence of post-independent India through education, and Charutar Vidya Mandal was born. Charutar Vidya Mandal was established in the year 1945 as a charitable trust with a prime objective of rural development through education to bring about the social awakening, social upliftment and enrichment. The uniqueness of Charutar Vidya Mandal lies in its ability to use quality education as a powerful means of social transformation. It was a stupendous task for the founders to establish a visionary organization; but the large-heartedness and high sense of philanthropy of this region made this possible. Over the subsequent years, Late Dr. H M Patel consolidated the efforts put in by the founders. Later on, in the 1990s, when Late Dr. C L Patel took over the reigns of Charutar Vidya Mandal as the Chairman, the country was facing a major economic and ideological change paving the way for globalization and liberalization.

Today Charutar Vidya Mandal is empowering budding graduates to live up to the ever-changing environment and equipping them to face the Third Millennium with confidence and competence. Building competitive advantages is the renewed focus of Charutar Vidya Mandal in the 21st century. At present, Charutar Vidya Mandal operates under the chairmanship of Er. Bhikhubhai B. Patel, 48 Educational Institutions from schools to colleges and a sophisticated Research Institute, with over 30,000 students on the rolls.

CVM University was inaugurated on the day of Platinum jubilee celebration of CVM by Hon. Vice President of India.

## **ABOUT NEW VALLABH VIDYANAGAR**

New Vallabh Vidyanagar - a self contained satellite township established under the dynamic leadership of visionary Chairman of that time Late DR. C. L. Patel who believed in ‘Think Globally and Act locally’. The campus spans over 100 acres of area and located behind the industrial belt of Vithal Udyog Nagar. This campus encompassing various institutes of advance learning including Engineering, Pharmacy, Biotechnology and Allied Sciences, Ayurved, Architecture and Interior design, Business and hospitality management and research institute on renewable energy. The campus is also equipped with Boy’s and Girl’s hostels with mess, staff apartments, Principal’s Bungalow, amenity building with shopping and medical facilities and landscaped public garden. This township is a nourishing ground for budding technocrats which are going to play pivotal role in the future of the region and state in particular and country in general.

## **ABOUT INSTITUTE**

A D Patel Institute of Technology is one of the pioneering institute imparting technical education in the state of Gujarat, India. It is established in the year 2000 and managed by Charutar Vidya Mandal (CVM), one of the leading trust of the nation established in 1948. The institute is located in satellite township of New Vallabh Vidyanagar having green natural environment and beautiful landscape near educational hub of the state, Vallabh Vidyanagar and Milk city Anand. Institute offers B.E. courses on Electronics and Communication Engineering, Computer Engineering, Information Technology, Electrical Engineering, Mechanical Engineering, Food Processing Technology, Civil Engineering and Automobile Engineering.

### **VISION:**

To add significantly to our enduring civilization tradition of pioneering excellence in learning, knowledge, enlightenment and self-realization in a universally relevant context.

### **MISSION:**

We dedicate to the perpetuation of our founders’ vision of providing the infrastructure, facilities, operation conditions and overall environment conducive to education of young scholars, along with the desired physical, mental & character building inputs; we firmly renew our commitment to providing value added, globally relevant education with an emphasis on the Techno-Management domain, to ensure that our scholars fruitfully exercise their knowledge, skills & values in the global economy.

## ABOUT AUTOMOBILE ENGINEERING DEPARTMENT

The department of Automobile Engineering was started in academic year 2003-2004. Department is having young and well qualified teaching faculties and well equipped laboratories.

### OUR VISION:

Instill enduring values and excellence in learning fundamental knowledge of automobile engineering, in universally relevant context for industry and society.

### OUR MISSION:

- Creating conducive environment for learning practical applications of latest technology through state-of-the-art laboratory facilities
- Providing opportunities for interaction with industry experts, visits to automotive industry and automotive research organizations
- Motivate and support students for participating in National level competition events for out of classroom practical learning for hands-on practice and development of a professional with ability to work in team and problem solving

### DETAILS OF STAFF MEMBERS

Name of faculty	Designation	Qualification	Experience
<b>Dr. Sanjay M Patel</b>	Asst. Professor & Head	Ph.D.	19 years
<b>Dr. Ajith Tom James</b>	Asst. Professor	Ph.D.	18 years
<b>Dr. R Balasubramanian</b>	Asst. Professor	Ph.D.	16 years
<b>Dr. Nimit M Patel</b>	Asst. Professor	Ph.D.	15 years
<b>Mr. Nikunj S Yagnik</b>	Asst. Professor	M.E, Ph.D. (Pursuing)	15 years
<b>Mr. Mahesh R Phogat</b>	Asst. Professor	M.Tech, Ph.D. (Pursuing)	9 years
<b>Mr. Yagnesh J Gambhava</b>	Asst. Professor	M.E, Ph.D. (Pursuing)	8 years
<b>Mr. Samarth J Shelat</b>	Asst. Professor	M.Tech	8 years
<b>Mr. Simit B Prajapati</b>	Asst. Professor	M.E, Ph.D. (Pursuing)	6 years
<b>Mr. Kuldeep Patel</b>	Asst. Professor	M.E, Ph.D. (Pursuing)	6 years
<b>Mr. Sailesh M Patel</b>	Foreman	B.E.	19 years
<b>Mr. Paresh I Patel</b>	Lab. Assistant	ITI	15 years
<b>Mr. Mahavir Patel</b>	Lab. Assistant	Diploma	4 years

### INDUSTRIAL VISITS

Sr.No	Name of Industry/Company	Date of Visit	No. of Students (Level)	Name of Faculty/Staff Members
1	Gujarat State Road Transport Corporation (GSRTC) Workshop, Naroda, Ahmedabad.	18/03/2019	30 (Fourth)	Dr. S. M. Patel, S. J. Shelat, Y. J. Gambhava
2	Micro Flat Datums Pvt. Ltd., Anand.	19/03/2019	37 (Second)	S. B. Prajapati, K. D. Patel, M. A. Patel
3	Mahindra & Mahindra, FIAT engineering, ARAI.	10/10/2019 TO 13/10/2019	44 (Fourth)	Dr. Nimit Patel, Kuldeep D Patel.

### EXPERT TALK

Sr.No	Activity	Date	Name of Expert	Remark
1	Expert Talk on “Lean Manufacturing in Automotive Industries”	26/08/2019	Mr Parth Shukla Sr Consultant, ADD VALUE INC	ISTE, Prof Y J Gambhava.
2	Expert Talk on “Recent Trends in electric Mobility”	15/09/2019	Mr Chandrashekharan Pradeep, General manager (R & D), Force Motors Ltd.	SAE Dr N M Patel.
3	Expert Talk on “Industrial Application of Vehicle Dynamics”	20/09/2019	Mr L Subramaniam, Manage, Vehicle Dynamics Dept. CEAT TYRES	SAE Dr A T James
4	Expert Talk on “Career Opportunities for Higher Studies at Germany”	03/01/2020	Mr Adil Rana, Master in Renewable Energy & Energy Efficiency. Uni. Of Kassel, Germany	Prof S B Prajapati.
5	Workshop on “Computer Aided Design”	07/01/2020 To 09/01/2020	Mr Nirav Sharma, Director, Krishna CAD Centre	ISTE Prof Y J Gambhava.

## STUDENTS' ACHIEVEMENTS

- **1<sup>st</sup> prize** – Best Maneuverability and Overall Winner of SAEISS Electric 2-Wheeler Design Competition-2019.



FINAL YEAR STUDENTS RECEIVING THE PRIZE IN THE SAEISS ELECTRIC TWO WHEELER COMPETITION -2019



THE PRIZE IN OVERALL AND BEST MANEUVERABILITY AT ELECTRIC TWO WHEELER DESIGN COMPETITION -2019

Final year Automobile engineering students had been participated in national level competition “Electric Two Wheeler Design Competition” organized by SAE Southern section, at Satyamangalam, Erode, Tamilnadu in September 2019. They made electric two wheeler which had cost them 75000/- rupees and they claimed that it gives 72 Km average per one recharge. This two wheeler takes approx 3 to 4 hour to complete recharge normally.

## DETAILS OF CO-CURRICULAR ACTIVITIES

### INAUGURATION OF PUC CENTRE:

Hon. Chairman, Charutar Vidya Mandal, Shri Bhikhubhai B. Patel Sir, Inaugurated the “PUC Centre” at ADIT Workshop, on 17<sup>th</sup> December 2019, at 10:00 am.



THE HON. CHAIRMAN CVM INAUGURATING THE PUC CENTRE AT ADIT



THE HON. CHAIRMAN CVM AT PUC CENTRE FACILITY IN ADIT



### LIST OF TOPPERS

Sr. No	Year of Graduation	Name of the Student	Enrolment No	CGPA/ CPI	University	Remarks
1	2007	Sharma Ashay H	03AE613	8.04	SPU	Uni. Topper
2	2008	George Joseph	04AE638	9.57	SPU	Uni. Topper
3	2009	Choksi Harshal A	05AE636	9.64	SPU	Uni. Topper
4	2010	Tekvani Amit A	06AE656	8.82	SPU	Uni. Topper
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6	2012	Thakkar Vishant K	080010102053	9.14	GTU	Uni. Topper
7	2013	Patel Shyam K	090010102010	8.80	GTU	-
8	2014	Rawat Umesh S	100010102029	8.91	GTU	-
9	2015	Mittal Udit Sanjiv	110010102004	9.31	GTU	Uni. Topper Gold Medal
10	2016	Marfatiya Mohammadsadman	120010102004	9.04	GTU	-
11	2017	Christian Alen John	130010102006	9.30	GTU	-
12	2018	Shah Parva C	140010102053	8.98	GTU	-
13	2019	Bhatti Prakash N	160013102002	8.64	GTU	-

### HIGHLIGHTS OF YEAR 2019

The following are the highlights of year 2019.

- SAE electric two wheeler
- SAE Baja 2019
- GTU All Terrain Vehicle Competition 2019
- Faculty Development Programme on “Recent Trends in Automobile Engineering
- Opening of PUC centre

**HIGHLIGHTS FINAL YEAR STUDENTS PROJECTS OF 2018-19**

<b>Sr. No.</b>	<b>Project title</b>	<b>Student Name</b>	<b>Guide Name</b>	<b>Description</b>
1	Design And Development Of Electric Mini Tractor	Padariya Chirag J. Zenith B. Khoyani ThumarDipen V	Dr. Ajit James Tom	Design and development of affordable mini tractor, by reducing costs in the conventional designs in the market, and also considering the manufacturing aspects for the same.
2	Remote Controlled Pesticide Sprayer	Diyora Ridham Limbasiya Naitik J. Manusuria Shiv Patel Anuj Umesh	Nikunj Yagnik	One of the technologies used in agricultural sector is pesticide sprayer that manually operated pump mounted on a backpack. This results in over exhaustion while operating the manual pumps. To overcome this difficulty, our team has come up with an idea of fabricating a remote control mover on which pesticide sprayer is mounted.
3	Self-Actuating Braking System With Pneumatic Bumper While Accident	Dobariya Hardik K. Hihoriya Mohit R. Sheta Jemish T. Jenish D Vora	Yagnesh Gambhava	This Project is about the Safety of Car and occupants. If obstacle or Any Car will come in front of the Vehicle Then the Bumper will move towards the Front side and also apply Brake to the wheels.
4	Design, Modelling and Development of Hydraulics Sky lifter for 2 Wheeler	Ankit Tiwari Divy Patel Dharmik Patel Pavan Mistry	Samarth Shelat	There was major issue regarding the lifting of bikes. So for this problem we can up with the idea that we should construct a lifting machine that will be able to lift the bike in different positions so that the worker can easily perform the servicing procedure simply.
5	Hydraulic Mini Fork Lifter	Karan Patel Maulik Padhariya Yash Sanghadia Kush Thakker	Samarth Shelat	Every workshop or small scale companies does not have overhead crane and cranes available in market can carry more load but are not portable and heavy & costly so our crane can be used to carry load up-to 150-200kg and it is easily portable.

## OUR DISTINGUISHED ALUMNUS

Sr.No	Full Name	En. Number	Year	Affiliation
1	Tushar Babu	03AE618	2007	Senior Manager, Volvo- Eicher
2	Gadhvi Amit Rameshchandra	03AE603	2007	MG Motors- Halol
3	Bhungani Nayankumar Dhirajlal	03AE622	2007	L & T , Vadodara
4	Thoria Prakash Mahadevbhai	03AE617	2007	Kirloskar Engines, Kolhapur
5	Sharma Ashay Harisharan	03AE613	2007	Supervisor, Fiat Chrysler Auto.
6	Bhatt Dushyantkumar K	04AE654	2008	Mercedes Benz., Pune
7	Pathak Vrushen Mukund	05AE681	2008	Technical Manager- Google
8	Rakesh Sharma	04AE637	2008	Harley Davidson, Delhi
9	Surti Raof Khalid	04AE611	2008	Tata Motors, Pune
10	Panchal Hrishikesh M	04AE616	2008	Hero Motor Corp., Halol
11	Dudhat Ashivin Ravjibhai	05AE686	2008	Tata Motors, Pune
12	Prajapati Gaurangkumar B	04AE617	2008	Tata Motors, Pune
13	Tank Jay Anilkumar	05AE685	2008	Gujarat State- RTO OFFICER
14	George Joseph	04AE638	2008	ABB, Ahmedabad
15	Solanki Viralkumar M	04AE614	2008	Ashok Leyland, Surat
16	Gohel Hardikkumar R	05AE650	2009	Bombardier, Vadodara
17	Maliya Jignesh Karshanbhai	06AE685	2009	Gujarat State- RTO OFFICER
18	Bhatt Meet Yogeshbhai	06AE664	2010	Hero Motor Corp., Halol
19	Tekvani Amitkumar Arjunbhai	06AE656	2010	Mahindra & Mahindra, TN
20	Dani Rutvija Prashant	07AE651	2011	Gujarat State- RTO OFFICER
21	Kelkar Kshitij Ratnakar	07AE601	2011	Mercedes Benz., Pune
22	Vyas Dharamdev Rajesh	07AE648	2011	ARAI, Pune
23	Desai Shrinath Sunilbhai	08AE691	2011	Mahindra & Mahindra, Nasik
24	Pujara Archan Sunilbhai	080010102037	2012	Maruti Suzuki India Ltd-Rohtak
25	Thakkar Arjunkumar R	080010102052	2012	UBER, Hyderabad
26	Alisha Hiren Patel	080010102023	2012	Dupont, USA
27	Prajapati Nayankumar Jitendra	080010102036	2012	Infosys, Pune
28	Shah Pratik sunilkumar	080010102045	2012	Mahindra & Mahindra, Tamilnadu
29	Gondaliya Lalitkumar Natvarlal	090010102005	2013	Bajaj Auto. Ltd., Ahmedabad
30	Patel Shyam Ketankumar	090010102010	2013	Ford, USA
31	Rawat Umesh Shyamsingh	100010102029	2014	Maruti Ltd., Mumbai
32	Mittal Udit Sanjeevbhai	110010102004	2015	Baxter Internation Inc.
33	Rahesiya Vishal Hirabhai	110010102053	2015	Maxxis Tyres, Ahmedabad
34	Mehta Jimit Ketankumar	130013102006	2016	Tesla Motors, USA
35	Baldaniya Hardik Rameshbhai	130010102003	2017	Mahindra & Mahindra Tractors
36	Shah Harsh Bharatbhai	130010102051	2017	TCS, Pune
37	Acharya Harsh Ketan	130010102001	2017	Ford, USA
38	Pratiksha Chauhan	140010102047	2018	MG Motors- Halol
39	Ashish Pal	140010102002	2018	Mahindra & Mahindra, Pune
40	Shah Jainam Hitenbhai	140010102051	2018	Tata AIG
41	Zenith Khoyani	150010102063	2019	MG Motors- Halol

## ALUMNI TESTIMONIAL



*“ADIT has enriched my life and given me astonishing platform to build myself as a great person and an Automobile engineer. It is very difficult to summarize the journey of 4 years in few lines. The faculties have helped us to gain more knowledge about the subject theoretically as well as practically. They encouraged and supported us for various events. I am thankful to the entire college for providing excellent ambience, teachers, education, communication skills and challenges”.*

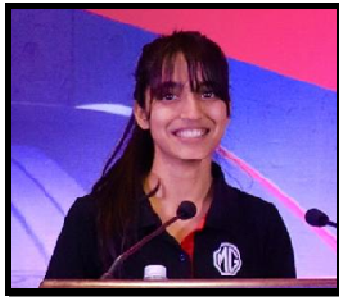
**Jainam Shah**

**Tata AIG General Insurance Company (Engineer Trainee (Motor Claims))**

**Year of Passing: 2018**

**Branch: BE Automobile**

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*“ADIT has a wonderful campus with exuberant atmosphere that made my four years a blissful memory. My department was a stepping stone in my career as I am currently placed in MG Motor India, one of the leading MNC. ADIT has helped me grow not only professionally but holistically as a good person”.*

**Pratiksha Chauhan**

**MG Motor India Private Limited (Engineer Trainee (Level M11))**

**Passing Year: 2018**

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*The editor or publisher does not take responsibility for the content presented during the events.*

*Errors, if any, are purely unintentional and readers are requested to communicate such errors to authorities*

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